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ABSTRACTS BOOK

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THE TROPICAL PLANT BIOLOGICAL RESOURCE CENTER OF THE FRENCH WEST INDIES: SERVING AGRICULTURE AND RESEARCH THROUGHOUT THE CARIBBEAN.

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Abstract

Plant genetic resources are instrumental in the adaptation of agriculture to social and environmental change. They are the backbone of research and breeding programs aimed at the development and transfer of new crop varieties best suited to consumers' needs and tastes and to new farming systems. To this aim, plant germplasm collections have been constituted worldwide. Securing such collections requires substantial human and financial investments that can prove difficult to maintain on the long run for small countries and territories such as most Caribbean countries.

In Guadeloupe and Martinique, INRA and CIRAD have constituted large plant germplasm collections of tropical crops over several decades. They joined forces in 2010 to create the Tropical Plant Biological Resource Center of the French West Indies (CRB-PT), which is affiliated to both institutions. Five collections are included in the CRB-PT.

The Banana collection includes 403 accessions representative of the world's banana diversity. It is maintained in the field and partly *in vitro*. Different kinds of banana are represented: plantain banana, cooking banana, dessert banana, ornamental banana and wild banana including *Musa acuminata* and *Musa balbisiana*.

The Yam collection contains 430 accessions which are maintained in the field with an *in vitro* duplicate backup. The main species represented are *Dioscorea alata*, *D. trifida*, *D. cayenensis-rotundata*, *D. Bulbifera* and *D. esculenta*.

The Mango collection contains 96 accessions, mainly of *Mangifera indica* species. 70 % of the genotypes are originating from different African countries. It is maintained in the field.

The Sugarcane collection includes 426 accessions from the CIRAD's breeding programmes and also commercial accessions from various countries. Seven species of *Saccharum* genus and one of *Elianthus* are preserved in the field. Some vulnerable accessions are also kept *in vitro*.

Located in Martinique, the Pineapple collection includes 517 wild and cultivated accessions representative of the world's pineapple diversity.